



# ***STIC Search Report***

***EIC 3700***

**STIC Database Tracking Number: 183671**

**TO: Paul Prebilic**  
**Location: RND 6c03**  
**Art Unit: 3993**  
**Thursday, March 30, 2006**

**Case Serial Number: 10/066769**

**From: Terry Solomon**  
**Location: EIC 3700**  
**RND 8b31**  
**Phone: 272-4240**

**terrance.solomon@uspto.gov**

## **Search Notes**

No current or past litigation found involving US pat. 6301801.

Sources:

Lexis/Nexis  
Questel-Orbit  
Courtlink

## Patent Search - Number: 6,301,801

No cases found.

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(Charges for search still apply)

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552572 (09) 6301801 October 16, 2001

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6301801

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October 16, 2001

Vacuum processing apparatus and operating method therefor

**REISSUE:** February 6, 2002 - Reissue Application filed Ex. Gp.: 2162; Re. S.N. 10/066,769 (O.G. October 15, 2002)

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(C) QUESTEL 1994

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\*\* SS 1: Results 1  
PRT SS 1 MAX 1 LEGALALL

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**Patent Number :**

US6301801 B1 20011016 [US6301801]

**Title :**

(B1) Vacuum processing apparatus and operating method therefor

**Inventor(s) :**

(B1) KATO SHIGEKAZU (JP); NISHIHATA KOUJI (JP); TSUBONE TSUNEHICO  
(JP); ITOU ATSUSHI (JP)

**Application Nbr :**

US55257200 20000419 [2000US-0552572]

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Divsn of US461432 19991216 [1999US-0461432]  
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Cont. of US882731 19970626 [1997US-0882731]  
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Cont. of US443039 19950517 [1995US-0443039]  
Divsn of US302443 19940909 [1994US-0302443]  
Cont. of US096256 19930726 [1993US-0096256]  
Cont. of US751951 19910829 [1991US-0751951]  
Continuation of: US6012235  
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Continuation of: US5784799  
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Continuation of: US5553396  
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**Priority Details :**

JP22532190 19900829 [1990JP-0225321]  
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US46143299 19991216 [1999US-0461432]  
US55257200 20000419 [2000US-0552572]  
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US88273197 19970626 [1997US-0882731]

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**IPC Advanced All :**

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H01L-021/677 [2006-01 A - I R M EP]

**IPC Core All :**

C23C-014/56 [2006 C - I R M EP]; H01L-021/00 [2006 C - I R M EP];  
H01L-021/67 [2006 C - I R M EP]

**EPO ECLA Class :**

C23C-014/56D  
H01L-021/00S2D4  
H01L-021/00S2Z  
H01L-021/00S8B  
H01L-021/677

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**US Patent Class :**

ORIGINAL (O) : 034406000; CROSS-REFERENCE (X) : 034092000 034228000

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US3652444; US3981791; US4138306; US4226897; US4311427; US4313783;  
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US4576698; US4634331; US4643629; US4705951; US4715764; US4824309;  
US4836733; US4836905; US4851101; US4895107; US4902934; US4903937;  
US4909695; US4911597; US4915564; US4917556; US4924890; US4936329;  
US4951601; US4969790; US5007981; US5014217; US5292393; US5351415;  
US5452166; US5462397; US5504033; US5504347; US5509771; US5556714;  
US5651858; US5675461; US5685684; EP20246453; EP20381338; JP57-29577;  
JP60-246635; JP62-44571; JP62-50463; JP62-89881; JP62-207866;  
JP63-153270; JP6412037; JP636582; JP131970; JP131971; JP1135015;  
JP1-251734; JP1298180; JP1-310553; JP2-61064; JP265252; JP294647;  
JP2-106037; JP430549; WO8707309  
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4, pp. 38-43, Apr. 10, 1987 (w/translation).

**Publication Stage :**

(B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

**Abstract :**

This invention relates to a vacuum processing apparatus having vacuum  
processing chambers the insides of which must be dry cleaned, and to a  
method of operating such an apparatus. When the vacuum processing  
chambers are dry-cleaned, dummy substrates are transferred into the  
vacuum processing chamber by substrates conveyor means from dummy  
substrate storage means which is disposed in the air atmosphere together  
with storage means for storing substrates to be processed, and the  
inside of the vacuum processing chamber is dry-cleaned by generating a  
plasma. The dummy substrate is returned to the dummy substrate storage  
means after dry cleaning is completed. Accordingly, any specific  
mechanism for only the cleaning purpose is not necessary and the  
construction of the apparatus can be made simple. Furthermore, the dummy  
substrates used for dry cleaning and the substrates to be processed do  
not coexist, contamination of the substrates to be processed due to dust  
and remaining gas can be prevented and the production yield can be  
high.

**Update Code :**

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1 / 1 CRXX - ©CLAIMS/RRX

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**Patent Assignee :**

Itou, Atsushi JP; Kato, Shigekazu JP; Nishihata, Kouji JP; Tsubone,  
Tsunehiko JP

**Actions :**

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